Notice of Allowability	Application No.	Applicant(s)
	10/612,241	LOVETTE ET AL.
	Examiner	Art Unit
	Tho v. Duong	3753
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this ap or other appropriate communication IGHTS. This application is subject	pplication. If not included on will be mailed in due course. THIS
1. This communication is responsive to 7/10/06.		
2. The allowed claim(s) is/are <u>1-26,28-55 and 57-81</u> .		
 3. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 		
2. Certified copies of the priority documents have been received in Application No		
3. Copies of the certified copies of the priority documents have been received in this national stage application from the		
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.	
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give		
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.		
(a) ☐ including changes required by the Notice of Draftspers	on's Patent Drawing Review (PTC	0-948) attached
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date	-	
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the	Office action of
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t		
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.		
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Attachment(s)	E TAILAR OF THE	Detent Application (DTO 450)
1. Notice of References Cited (PTO-892)		Patent Application (PTO-152)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summar Paper No./Mail Da	
3. Information Disclosure Statements (PTO-1449 or PTO/SB/C Paper No./Mail Date 3/8/04; 9/3/04;	08), 7. ☐ Examiner's Amend	dment/Comment
 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material 	8. 🛛 Examiner's Statem	nent of Reasons for Allowance
•	9.	Tho v Duong Primary Examiner Art Unit: 3753

Continuation Sheet (PTOL-37)

Continuation of 3: 1/26/05; 2/1/05; 5/5/05; 3/15/06; 7/10/06 and 31/7/06

Application No.

DETAILED ACTION

Allowable Subject Matter

Claims 1-3,5-24,28-30,33-37,39-53,57-59 and 62-65 are allowed. Since the generic claims 1,21,35 and 50 are allowed, the previous restriction requirement has been withdrawn. Claims 4,25,26,31,32,38,54,55,60,61 and 66-81 are now rejoined. Therefore claims 1-26,28-55 and 57-81 are now allowed.

The following is an examiner's statement of reasons for allowance: the prior arts of record either taken singularly or in combination fails to disclose the claimed invention.

Applicant's argument of the term "vertical stacked routes" (page 12, Applicant's argument, 12/5/05), is persuasive, in which the term "vertical stacked routes" is specifically defined on page 9, lines 9-11 in the specification. Furthermore, reference to Nakamura is the closest prior art, however, Nakamura's heat exchanger is a stacked plate heat exchanger to exchange heat between two fluids inside and outside of the tubes, which does not have a heat generating device coupled to a bottom surface of the interface layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Information Disclosure Statement

The form PTO-1449, filed March 4, 2004, has been initialed, signed and sent to the applicant in the Office Action mailed on 4/5/2005. The non-Patent literatures in PTO-1449 filed 3/8/04 are signed and attached in this Office Action.

Art Unit: 3753

The Office has not received any PTO-1449 filed 8/31/04. However, a PTO-1449 filed 9/3/04 has been initialed, signed and sent to the applicant in the Office Action mailed on 4/5/05.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keasel Eric can be reached on 571-272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tho v Duong Primary Examiner

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Art Unit 3753

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August 21, 2006